09/845-178

Off (

Patent

Case No.: 56373US002

SPE 4232692 Schstomer Number

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:

Lu, Zhonghua

Patent No.:

6964828

Group Art Unit:

1746

Dated:

November 15, 2005

Examiner:

M. Wills

Title:

IMPROVED CATHODE COMPOSITIONS FOR LITHIUM-ION

BATTERIES

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 CFR § 1.322

Commissioner for Patents
Office of Publication
Attn: Certificate of Correcti

Attn: Certificate of Correction Branch

P.O. Box 1450

Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being: deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

MAY 03 2008

Signed by: Lydia M. Cahill

Dear Sir:

It is respectfully requested that a Certificate of Correction be issued in connection with the above-identified patent. The required text is submitted on the attached form.

Because the listed errors first occurred in the printed patent, and are not due to Applicant's mistake, no fee is required in connection with this Certificate of Correction.

Respectfully submitted,

Date

my or, acus

Office of Intellectual Property Counsel

3M Innovative Properties Company

Facsimile No.: 651-736-3833

Lucy C. Weiss, Kleg. No.: 32,8 Telephone No.: 651-733-1189

Certificate

MAY 1 0 2006

Of Correction

CERTIFICATE OF CORRECTION

Page 1 of 8

PATENT NO.:

6964828

DATED:

November 15, 2005

FIRST NAMED INVENTOR:

(56) -- -- Insert the following:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Matsubara

Mao et al.

Fauteux et al.

Hasegawa et al.

Yamaura et al.

Hayashi et al.

Nitta et al.

Amine et al.

Dahn et al.

Hayashi

Title Page

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12/31/96

3/11/97

4/21/98

6/23/98

7/21/98

1/12/99

5/6/97

8/2/01

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CERTIFICATE OF CORRECTION

PATENT NO.:

6964828

DATED:

November 15, 2005

FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

5,900,385	5/4/99	Dahn et al.
5,911,920	6/15/99	Hasezaki et al.
5,981,445	11/9/99	Kirchnerova et al.
5,993,998	11/30/99	Yasuda
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JP05-283077	10/29/1993	Japan	
JP06-275264	9/30/1994	Japan	

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CERTIFICATE OF CORRECTION

Page 3 of 8

PATENT NO.:

6964828

DATED:

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FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

JP06-275269	9/30/1994	Japan
JP07-134985	5/23/1995	Japan
JP07-235291	9/5/1995	Japan
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JP2668678		Japan
JP2561556		Japan
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JP 10-1065652		Japan
2001-146426		Japan
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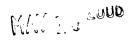
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CERTIFICATE OF CORRECTION

Page 4 of 8

PATENT NO.:

6964828

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FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

2002-063900	2/28/2002	Japan
EP1 117 145	7/18/2001	EPO
EP 0 501 187	4/17/1996	EPO
EP 0 903 796	3/24/99	EPO
0 468 942 B2	12/1/99	EPO
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0 944 125	9/22/99	EP
2002/042813	2/8/02	Japan
1 189 296 A2	3/20/02	EP
WO 02/40404A1	5/23/02	PCT
2000/223122	8/11/00	Japan
11-364156	12/24/99	Japan

Numata, K. et al., Preparation and electrochemical properties of layered lithium-cobalt-manganese oxides, Solid State Ionics, 118(1999) pp. 117-120.

Numata K. et al., Synthesis of Solid Solutions in a System of LiCoO₂-Li₂MnO₃ for Cathode Materials of Secondary Lithium Batteries, <u>The Chemical Society of Japan</u>, (1997), pp. 725-726.

Numata K. et al, Synthesis and characterization of layer structured solid solutions in the system of LiCoO₂-Li₂MnO₃, Solid State Ionics 117 (1999) pp. 257-263.

Armstrong and Bruce, "Synthesis of layered LiMnO₂ as an electrode for rechargeable lithium batteries," Nature, 1996, 381:499-500.

Dahn et al., "Structure and Electrochemistry of Li₂Cr_xMn_{2-x}O₄ for 1.0≤x≤1.5," <u>J. Electrochem. Soc.</u>, 1998, 145(3):851-859.

MAILING ADDRESS OF SENDER:

PATENT NO. 6964828

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CERTIFICATE OF CORRECTION

Page 5 of 8

PATENT NO.:

6964828

DATED:

November 15, 2005

FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delmas et al., "Soft chemistry in A_xMO₂ sheet oxides," Revue de Chimie Minérale, 1982, 19:343-351.

DeSilvestro, "Pacific Lithium Limited – Novel layered cathode materials for advanced lithium ion batteries," presented at May 2000 International Li Battery Conference, Como, Italy

Hill and Howard, "Peak Shape Variation in Fixed-Wavelength Neutron Powder Diffraction and its Effect on Structural Parameters Obtained by Rietveld Analysis," <u>J. Appl. Cryst.,</u> 1985, 18:173-180

Naruoka et al., "Development of Lini_{1-x-y}Co_xMn_yO₂ System Positive Active Material for Lithium Ion Cells," <u>GS News Technical Report</u>, 2000, 59(2):13-17 (Translation attached)

Neudecker et al., "Lithium Manganese Nickel Oxides Li_x(Mn_yNi_{1-y})_{2-x}O₂," <u>J. Electrochem. Soc.</u>, 1998, 145(12):4160-4168.

Paulsen and Dahn, "02 Structure Li_{2/3}[Ni_{1/3}Mn_{2/3}]0₂: A New Layered Cathode Material for Rechargeable Lithium Batteries," <u>J. Electrochem. Soc.</u>, 2000, 147(3):861-868.

Rossen et al., "Structure and electrochemistry of Li_xMn_yNi_{1-y}O₂" <u>Solid State Ionics</u>, 1992, 57:311-318

Wiles and Young, "A new computer program for Rietveld analysis of X-ray powder diffraction patterns," J. Appl. Cryst., 1981, 14:149-151. -- -- therefor.

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PATENT NO. 6964828

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CERTIFICATE OF CORRECTION

PATENT NO.:

6964828

DATED:

November 15, 2005

FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page

(56) Line 33, delete "Composition" and insert - - Compositions - -, therefor.

Line 33, after "Ion" insert - - Batteries - -.

Page 2

Line 9, delete "for" and insert - - of - -, therefor.

Column 4

Line 34, delete "Ni(NO₃)₂.6H₂O" and insert - - Ni(NO₃)₂·6H₂O - -, therefor.

Line 35, delete " $Mn(NO_3)_2.4H_2O$ " and insert - - $Mn(NO_3)_2.4H_2O$ - -, therefor.

Line 37, delete "LiOH.H₂O" and insert - - LiOH·H₂O - -, therefor.

Line 46, delete "LiOH.H₂O" and insert - - LiOH·H₂O - -, therefor.

Column 5

Line 53, after "parameters." insert - - An asterisk means "not tested." - -.

Column 6

Line 27, after "parameters." delete "An asterisk means "not tested".".

Column 8

Line 52, delete "Ni(NO₃)₂·6H₂O" and insert - - Ni(NO₃)₂·6H₂O - -, therefor.

MAILING ADDRESS OF SENDER:

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CERTIFICATE OF CORRECTION

PATENT NO .:

6964828

DATED:

November 15, 2005

FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 8

Line 53, delete " $Mn(NO_3)_2.4H_2O$ " and insert - - $Mn(NO_3)_2.4H_2O$ - -, therefor.

Line 53-54, delete " $Co(NO_3)_2$.6 H_2O " and insert - - $Co(NO_3)_2$.6 H_2O - -, therefor.

Line 55, delete "LiOH.H2O" and insert - - LiOH·H2O - -, therefor.

Column 9

Line 55, in Claim 1, after "(a)" delete "0" and insert - - 0.083 - -, therefor.

Line 57, in Claim 1, after "proviso that" insert - - (i) M1 includes nickel, (ii) - -.

Line 58, in Claim 1, after "and" insert - - (iii) - -.

Column 10

Line 4, in Claim 2, after "M¹" delete "is" and insert - - further includes an element - -, therefor.

Line 4, in Claim 2, after "consisting of" delete "Ni,".

Line 8, in Claim 3, delete "0" and insert - - 0.083 - -, therefor.

Line 9, in Claim 3, after "proviso that" insert - - (i) M² includes nickel, (ii) - -.

Line 10, in Claim 3, after "and" insert - - (iii) - -.

Line 16-17, delete "4. A cathode composition according to claim 3 wherein 0.083<y<0.5.".

Line 21-22, delete "7. A cathode composition according to claim 6 wherein M² is Ni.".

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Page 7 of 8



CERTIFICATE OF CORRECTION

PATENT NO.:

6964828

DATED:

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FIRST NAMED INVENTOR:

Lu, Zhonghua

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 10

Line 25, in Claim 8, delete "0" and insert - - 0.083 - -, therefor.

Line 26, in Claim 8, after "proviso that" insert - - (i) M3 includes nickel, (ii) - -.

Line 27, in Claim 8, after "and" insert - - (iii) - -.

Line 34-35, delete "9. A cathode composition according to claim 8 wherein 0.083<y<0.5.".

Line 40-41, delete "12. A cathode composition according to claim 11 wherein M³ is Co.".

Line 43, in Claim 13, delete "0<y<0.5," and insert - - 0.083<y<0.5, with the proviso that (i) - -, therefor.

Line 43, In Claim 13, after "chromium," delete "and" and insert - - (ii) - -, therefor.

Line 45, In Claim 13, after " M^4 ," delete "and" and insert - - (iii) M^4 or M^5 includes nickel, and (iv) - -, therefor.

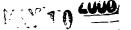
Line 52-53, delete "14. A cathode composition according to claim 13 wherein 0.083 < y < 0.5."

Line 65, in Claim 19, delete "cathodes." and insert - - cathode. - -, therefor.

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